

REMARKS

The undersigned thanks the examiner Mr. Hee-Yong Kim and his supervisor Mr. Andy Rao for the telephone interview held 22 September 2010. An agreement was reached that the rejection under 35 U.S.C. 112, first paragraph would be withdrawn if the applicant submitted arguments substantially as presented below.

1. The specification is amended to correct typographical errors and improve grammar.
2. Claims 1-4, 18-22 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The examiner states:

Regarding independent claims 18 and 21, they recite “information specifying a presentation priority for each modality of a plurality of first modalities, at least one of the first modalities being a visual modality; obtaining ... contents to be presented to the user”. However, “the first modalities” are not disclosed in the specification and therefore it is a new matter. For the prosecution of the application, the first modalities are modalities with the higher priorities.

It is respectfully submitted that in claim 18, the “information specifying a presentation priority for each ... of a plurality of first modalities” is supported by the presentation priority input at step 312 of Fig. 4 (“information about user’s presentation preferences”, specification page 14 lines 5-6), and by specification page 16 lines 1-12.

More particularly, in the embodiment shown in the applicant’s Fig. 1, visual contents are received over a network and provided to unit 300. The visual contents may include contents of different modalities. In addition to the visual contents, unit 300 receives user information from unit 200 (Figs. 1, 4). Then, as stated in the specification page 6 lines 17-21, “unit 300 adapts the visual contents ... using the user information received from ... unit 200”, and the “adapted visual contents are outputted to the user”.

The user information from unit 200 includes “user’s presentation preferences” (specification page 14 lines 4-6). The presentation preferences are used in the presentation-priority processing “to enhance the perceptibility of certain contents objects according to

user's capability and ... interest ... For example when a ... user is interested in text contents, the text ... will be enhanced, audio contents may be enhanced as well ... while the image contents may be discarded or given in low quality. The adaptation level ... depends on ... priority" (page 16 lines 1-10).

Of note, as shown in Fig. 2 and described in the specification page 7 lines 20-29 (see the amended paragraph herein), unit 200 stores "user's presentation information description part 220" which includes "modality priority preference 222". This is consistent with the description, quoted above, on page 16 lines 4-9 of enhancing content of certain modalities (e.g. text) at the expense of other modalities.

The "first modalities" of claim 18 read on the modalities for which the presentation preferences are specified by unit 200 at step 312 of Fig. 4. Claim 20 is believed to be allowable for similar reasons.

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3. Claims 1-4, 18-22 were rejected under 35 U.S.C. 103(a) over Surve (US 6,591,008) in view of Fink (New Review of Hypermedia and Multimedia, vol. 4, issue 1, 1998) and further in view of Carro (US 7,316,566).

4. Claim 18 is directed to contents adaptation for a "user's perceptibility impairment comprising a low-vision impairment symptom". Claim 18 is supported by the specification page 16 lines 1-12, and in particular by lines 1-3 reciting enhancement of "perceptibility ... according to user's capability". Claim 18 is not limited to the embodiments discussed herein.

Claim 18 distinguishes from the three cited references by reciting, in line 4, "a presentation priority for each modality of a plurality of first modalities", and by further reciting in lines 10-13 that "adapting the contents comprises, for each object of any first modality, adapting the object in accordance with the first modality's presentation priority to obtain an adapted object whose modality is unchanged but whose presentation quality is enhanced or not in accordance with the first modality's presentation priority".

In the embodiment of the applicant's page 16 lines 1-12, for example, "when a low-vision user is interested in text contents, the text ... will be enhanced, audio contents may be

enhanced as well (if the user has no problem in hearing), while the image contents may be ... given in low quality". Advantageously, some embodiments of claim 18 allow efficient utilization of computer resources based on the user's presentation preference for a certain modality or modalities as noted in page 16 lines 11-12 ("objects of high priorities will be enhanced and allocated more resources which results in higher qualities"). As noted above, claim 18 is not limited to the embodiments discussed herein.

As acknowledged by the examiner (office action page 5), a combination of Surve and Fink does not teach a plurality of first modalities such that, "for each object of any first modality", the object is adapted "in accordance with the first modality's presentation priority to obtain an adapted object whose modality is unchanged ...". For example, the Surve reference teaches adaptation of colors, and is not concerned with different modalities as recited in claim 18.

Fink's page 6 lines 1-3 teach "preferences for certain ... modalities", but Fink is directed to modality conversion, i.e. changing the modality. See Fink's page 3 lines 3-4 ("For blind users, the modality ... must be changed to tactile and/or audio"). This is different from claim 18 because in claim 18 the "modality is unchanged".

The examiner cites Carro's column 2 lines 13-16 disclosing Screen Magnifiers. Carro's whole description of the Screen Magnifiers is as follows:

Screen Magnifiers enable users with low-vision to magnify **text and images** on the computer screen. For example, "MAGic Screen Magnification," from Henter-Joyce, is a screen magnification product for Windows. (Emphasis added.)

The office action states at page 6:

... The Surve method, incorporating the **Fink** specifying and obtaining a **presentation priority for each modality**, further incorporating the **Carro** adapting the visual content ... **to enhance the visual content according to the presentation priority** and providing adaptive contents by **magnifying the text and images**, has all the features of claim 18. (Emphasis added.)

This is respectfully traversed for any one of the following reasons.

Reason 1: It is respectfully submitted that the examiner has not explained why it would have been obvious to use Fink's "presentation priority for each modality" for Carro's image magnification. Carro's image magnification is not based on a modality but applies across multiple modalities (text and image). Carro's magnification is tied to a device (computer screen), not a modality. A priority for each modality would be useless in Carro.

As stated in the USPTO "Examination Guidelines Update: Developments in the Obviousness Inquiry After *KSR v. Teleflex*", 75 Federal Register 53643 (2010), 53647 (discussing the Example 4.3):

a hallmark of a proper obviousness rejection based on combining known prior art elements is that one of ordinary skill ... would reasonably have expected the elements to **maintain their respective properties and functions** after they have been combined. (Emphasis added.)

See also MPEP 2141 stating (in the discussion of *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (2007)):

When considering obviousness of a combination of known elements, the operative question is thus "whether the improvement is more than the predictable use of prior art elements according to **their established functions**." ... 82 USPQ2d at 1396. (Emphasis added.)

The function of Fink's modality preferences is to indicate a preferred modality, not a modality-blind device-based magnification.

Reason 2: The combination suggested by the examiner does not provide the applicant's invention. Indeed, if Fink's modality preferences were used as preferences for Carro's screen magnification, each such preference would be effective across multiple modalities and therefore would not meet the recitation, in claim 18 lines 10-12, of adapting each object in accordance with the presentation priority of **each modality**:

for each object of any first modality, adapting the object **in accordance with the first modality's presentation priority** ...

As noted above, in some embodiments of claim 18, this technique allows efficient, modality-based utilization of computer resources (specification page 16 lines 11-12). Claim 18 is not limited however to the embodiments discussed herein.

In summary, the invention of claim 18 provides a new function of allowing the user to specify not simply a preference for one modality over another modality, but a preference for enhancing an object without changing the object's modality. The user can specify such preference for each of plural modalities, not just for an entire screen like in Carro. The combination of the three cited references is respectfully submitted to fall short of this functionality.

Claim 19 depends from claim 18.

Claim 20 is believed to be allowable for the reasons similar to the reasons given above for claim 18. Claims 21-22 depend from claim 20.

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Any questions regarding this case can be addressed to the undersigned at the telephone number below.

Certificate of Transmission: I hereby certify that this correspondence is being transmitted to the United States Patent and Trademark Office (USPTO) via the USPTO's electronic filing system on October 13, 2010.

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Respectfully submitted,

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